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XuFan Tseng

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May 15, 2008

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Date

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Appellants : Lewis Michael Popplewell *et al.*  
Serial No. : 10/693,527  
Filed : October 24, 2003  
Art Unit : 1618  
Confirmation No. : 2313  
Examiner : James William Rogers  
Title : CELLULOSE-BASED PARTICLES OR LIQUIDS AND  
METHODS FOR THEIR PREPARATION AND USE

Mail Stop Appeal Brief-Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**AMENDED APPEAL BRIEF UNDER 37 CFR § 41.37**

Dear Sir/Madam:

This Amended Appeal Brief is responsive to the Notification of Non-Compliant Appeal Brief issued on April 18, 2008. A shortened statutory period for reply to this Notification is set to expire on May 18, 2008. This Amended Appeal Brief is filed within the shortened statutory period. Accordingly, it is believed no extension of time is required.

This Amended Appeal Brief is submitted in support of the appeal from the Primary Examiner's November 14, 2007 final rejection of claims 26, 27, and 29-34 in the above-identified application. Applicants submit this Appeal Brief in furtherance of the Notice of Appeal filed February 14, 2008 under CFR § 41.31. The Commissioner is authorized to charge any required fees and any additional fees, or credit any overpayment to the Deposit Account No. 12-1295 in connection with this matter.

**(I) REAL PARTY IN INTEREST**

The real party in interest is International Flavors & Fragrances Inc., the assignee of the above-identified application.

**(II) RELATED APPEALS AND INTERFERENCES**

Appellants believe there are no related appeals or interferences that will directly affect or will be directly affected by the Board's decision in the present appeal.

**(III) STATUS OF CLAIMS**

The application as filed contained claims 1-24.

In the December 7, 2006 Amendment, claims 1-17 and 19-24 were canceled and claim 25 was added.

In the July 2, 2007 Amendment, claims 18 and 25 were canceled and claims 26-29 were added.

In the October 12, 2007 Amendment, claim 28 was canceled and claims 30-34 were added.

All of the pending claims (i.e., claims 26, 27, and 29-34) have been rejected and are the subject of this appeal.

**(IV) STATUS OF AMENDMENTS**

No amendments have been filed subsequent to the November 14, 2007 Final Office Action.

**(V) SUMMARY OF CLAIMED SUBJECT MATTER**

The present invention is directed to a continuous liquid flavor or fragrance system that comprises a flavor or fragrance material and a cellulose polymer. Incorporation of the recited cellulose polymer at the recited level provides release characteristics desired for the flavor/fragrance delivery.

Independent claim 26 recites a continuous liquid flavor or fragrance system comprising a flavor or fragrance material and a cellulose polymer, the cellulose polymer is hydroxypropyl cellulose or ethyl cellulose.<sup>1</sup> Dependent claims 30-32 depend directly from claim 26, and contain further limitations to claim 26.<sup>2</sup>

Independent claim 27 recites a preferred continuous liquid flavor system comprising a flavor material, an emulsifier, and a cellulose polymer, and the cellulose polymer is hydroxypropyl cellulose or ethyl cellulose.<sup>3</sup> Dependent claim 29 depends directly from claim 27, and contains further limitations to claim 27.<sup>4</sup>

Independent claim 33 recites a more preferred continuous liquid flavor system comprising the same elements as those recited in claim 27 (*See*, the paragraph above), but with narrower concentration ranges.<sup>5</sup> Dependent claim 34 depends directly from claim 27, and contains further limitations to claim 33.<sup>4</sup>

#### **(VI) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Claims 26, 27, and 29-34 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,096,699 to Bergemann *et al.* (hereinafter “Bergemann”).

#### **(VII) ARGUMENT**

Claims 26, 27, and 29-34 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bergemann. For the reasons set forth below, Appellants respectfully traverse the rejection of claims 26, 27, and 29-34.

To establish a *prima facie* case of obviousness, the “prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from

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<sup>1</sup> Specification at page 3, lines 2-6; page 13, lines 10-16

<sup>2</sup> Specification at page 13, lines 12 -16

<sup>3</sup> Specification at page 3, lines 2-6; page 13, lines 18-22

<sup>4</sup> Specification at page 8, lines 17-19

<sup>5</sup> Specification at page 3, lines 2-6; page 13, lines 22-25

the claimed invention.” *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, (Fed. Cir. 1983).

Here, Bergemann teaches a solvent containing zero to about 10 weight percent of a thickener, i.e., the thickener serves as a non-essential ingredient in the Bergemann composition (*See*, Bergemann, col. 2, lines 17 and 39; col. 3, lines 45 and 66). Bergemann also discloses methylcellulose and hydroxypropyl methyl cellulose as suitable thickeners, and further specifies water soluble methylcellulose as a preferred embodiment (*See*, Bergemann, col. 5, lines 35-42).

In contrast, the claimed invention is directed to a continuous liquid flavor or fragrance system comprising essential ingredients of a flavor or fragrance material and a cellulose polymer. More importantly, the claimed invention requires the cellulose polymer be soluble in organic solvents.<sup>6</sup> In particular, water soluble methylcellulose and hydroxypropyl methyl cellulose, while disclosed as suitable, even preferable, thickeners in Bergemann, are taught explicitly in the claimed invention as non-functional.<sup>7</sup> Thus, the claimed invention has clearly demonstrated the criticality of the cellulose polymers. Bergemann would not lead one skilled in the art to essentially include a cellulose polymer in the composition, let alone to recognize the criticality of the types of cellulose polymers to be included.

As stated in MPEP 2144.05 III, “Applicants can rebut a *prima facie* case of obviousness based on overlapping ranges by showing the criticality of the claimed range. ‘The law is replete with cases in which the difference between the claimed invention and the prior art is some range or other variable within the claims. . . . In such a situation, the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range.’ *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).”

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<sup>6</sup> Specification, page 6, lines 1-11

<sup>7</sup> Specification, page 6, lines 15-19

As such, Appellants respectfully submit that Appellants have shown the particular cellulose polymers recited in the claimed invention (i.e., hydroxypropyl cellulose and ethyl cellulose) are critical, and achieve unexpected results relative to the prior art disclosure in its entirety.

Conclusion

For the reasons set forth above, Appellants respectfully submit that claims 26, 27, and 29-34 are patentable in view of the cited reference. Appellants respectfully request the Board of Patent Appeals and Interferences to reverse all of the Examiner's rejections as to all of the claims.

Respectfully submitted,



Date: May 15, 2008

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**(VIII) CLAIMS APPENDIX**

1-25. (Canceled)

26. (Previously presented) A continuous liquid flavor or fragrance system comprising from about 80 to about 99.5 weight percent a flavor or fragrance material and from about 0.5 to about 20 weight percent a cellulose polymer, wherein the cellulose polymer is selected from the group consisting of hydroxypropyl cellulose and ethyl cellulose, with the proviso that the continuous liquid flavor or fragrance system is not a liquid crystalline.

27. (Previously presented) A continuous liquid flavor system comprising:  
from about 70 to about 97 weight percent a flavor material;  
from about 2 to about 30 weight percent an emulsifier; and  
from about 0.5 to about 10 weight percent a cellulose  
polymer,  
wherein the cellulose polymer is selected from the group  
consisting of hydroxypropyl cellulose and ethyl cellulose, with the proviso that the  
continuous liquid flavor system is not a liquid crystalline.

28. (Canceled)

29. (Previously presented) The continuous liquid flavor system of claim 27, wherein the emulsifier is selected from the group consisting of mono or di-glycerol ester of fatty acid, polyglycerol ester, and sorbitol ester.

30. (Previously presented) The continuous liquid flavor or fragrance system of claim 26 comprising from about 85 to about 95 weight percent the flavor or fragrance material.

31. (Previously presented) The continuous liquid flavor or fragrance system of claim 26 comprising from about 5 to about 15 weight percent the cellulose polymer.

32. (Previously presented) The continuous liquid flavor or fragrance system of claim 26 comprising from 3 to 8 weight percent the cellulose polymer.

33. (Previously presented) A continuous liquid flavor system comprising:  
from about 78 to about 92 weight percent a flavor material;  
from about 5 to about 20 weight percent an emulsifier; and  
from about 2 to about 8 weight percent a cellulose polymer,  
wherein the cellulose polymer is selected from the group  
consisting of hydroxypropyl cellulose and ethyl cellulose, with the proviso that the  
continuous liquid flavor system is not a liquid crystalline.

34. (Previously presented) The continuous liquid flavor system of claim 33, wherein  
the emulsifier is selected from the group consisting of mono or di-glycerol ester of fatty  
acid, polyglycerol ester, and sorbitol ester.

**(IX) EVIDENCE APPENDIX**

None

**(X) RELATED PROCEEDINGS APPENDIX**

None